

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-2. Canceled.

3.-4. (Canceled).

5. (Previously Presented) A method for producing an acicular silicon crystal which comprises:
sputtering catalytic metal micro particles by applying a direct-current voltage to a silicon substrate under reduced pressure with the silicon substrate, a target of anode side and a catalyst metal, a target of cathode side opposed to each other in an atmosphere of inert gas to uniformly adhere the catalytic metal micro particles on the silicon substrate;
and then generating electron discharge plasma by a microwave power during supplying a hydrocarbon-based gas and a carrier gas on the silicon substrate to form acicular silicon crystals with surfaces coated with a thin carbon film.

6. (Previously Presented) The method for producing an acicular silicon crystal according to claim 5, wherein the catalytic metal micro particles comprise Fe.

7. (Previously Presented) The method for producing an acicular silicon crystal according to claim 5, wherein an n-type low resistive silicon substrate having resistivity of 0.1 to 20 $\Omega \cdot \text{cm}$ is used as the silicon substrate.

8.-10. (Canceled).